

CLAIMS

A PROCESS AND SYSTEM FOR PRODUCING, WHEN CALLING A
STANDARD PORTABLE MOBILE TELEPHONE, AN ACOUSTIC SIGNAL
OF POWER COMPARABLE TO THAT OF THE RING OF A DOMESTIC
TELEPHONE INSTRUMENT

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1. A process for producing, when a standard portable mobile telephone is called by a calling station, an acoustic signal of power comparable to that of the ring of a domestic telephone instrument: said process including the stages:
- 5 - of autonomous detection (1) by the mobile telephone, directly or indirectly, of the call from the calling station and of generation of a detection signal,
- 10 - of triggering, by means of said detection signal, the emission of an acoustic signal (4) of power comparable to that of the ring of a domestic telephone instrument,
- 15 (so that the user of the standard mobile telephone is alerted to the incoming call even if he/she happens to be some distance away from the standard mobile telephone).
- 20 2. A process according to claim 1 characterised in that it includes additionally the stage of emitting the acoustic signal by means of an emitter supplied (5), directly or indirectly, with power by a domestic source, particularly by a charger connected to the household electricity and/or a

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- rechargeable battery by a charger connected to the household electricity,
(so that the number of incoming calls giving rise to the production of a high power acoustic signal is not limited by the capacity of the power source).
3. A process according to any one of claims 1 or 2 characterised in that for the mobile telephone to detect autonomously the call from the calling station:
- a disturbance of the electromagnetic environment of the mobile telephone is detected,
(so that it is not necessary to modify the electronic circuits of the standard mobile telephone).
4. A process according to any one of claims 1 or 2 such that in sleep mode the mobile telephone is combined with a charger, said process being characterised in that for the mobile telephone to detect autonomously the call from the calling station:
- the variations in charging current of said charger are detected,
- 20 (so that it is not necessary to modify the electronic circuits of the standard mobile telephone).
5. A process according to any one of claims 1 or 2 such that the mobile telephone comprises a vibrator intended to signal calls to the user, said process being characterised in that for the mobile telephone to detect autonomously the call from the calling station:
- vibrations given out by said vibrator are detected (1),
(so that it is not necessary to modify the electronic circuits of the standard mobile telephone).

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6. A process according to any one of claims 1 or 2 characterised in that for the mobile telephone to detect autonomously the call from the calling station:
- the call emitted by the calling station is detected by means of an independent electronic circuit.
(so that it is not necessary to modify the electronic circuits of the standard mobile telephone).
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7. A device for producing, when a standard portable mobile telephone is called by a calling station, an acoustic signal of power comparable to that of the ring of a domestic telephone instrument; said device including:
- detection means (1) for the mobile telephone to detect autonomously, directly or indirectly, the call from the calling station and detection signal production means,
- means for triggering (2, 3), by means of said detection signal, the emission by an acoustic emitter of an acoustic signal of power (4) comparable to that of the ring of a domestic telephone instrument,
(so that the user of the standard mobile telephone is alerted to the incoming call even if he/she happens to be some distance away from the standard mobile telephone).
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8. A device according to claim 7 characterised in that said acoustic emitter is supplied, directly or indirectly, with power by a domestic source (5), particularly by a charger connected to the household electricity and/or a rechargeable battery by a charger connected to the household electricity,

(so that the number of incoming calls giving rise to the production of a high power acoustic signal is not limited by the capacity of the power source).

9. A device according to any one of claims 7 or 8
5 characterised in that the detection means for the mobile telephone to detect autonomously the call from the calling station comprise disturbance analysis means of the electromagnetic fields surrounding the mobile telephone,

10 (so that it is not necessary to modify the electronic circuits of the standard mobile telephone).

10. A device according to any one of claims 7 or 8; the mobile telephone being combined in sleep mode with a charger, said device being characterised in that
15 the detection means for the mobile telephone to detect autonomously the call from the calling station comprise analysis means of the charging current of said charger,
(so that it is not necessary to modify the electronic circuits of the standard mobile telephone).

20 11. A device according to any one of the claims 7 or 8; the mobile telephone comprising a vibrator intended to signal calls to the user; said device being characterised in that the detection means (1) for the mobile telephone to detect autonomously the call from
25 the calling station comprise receivers sensitive to the vibrations given out by said vibrator,
(so that it is not necessary to modify the electronic circuits of the standard mobile telephone).

12. A device according to any one of claims 7 or 8
30 characterised in that the detection means for the mobile telephone to detect autonomously the call from

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- the calling station comprise an independent electronic circuit picking up the call signals emitted by the calling station,
- (so that it is not necessary to modify the electronic circuits of the standard mobile telephone).
13. A process according to any one of claims 1 or 2 such that the mobile telephone comprises a ring intended to signal calls to the user, said process being characterised in that for the mobile telephone to detect autonomously the call from the calling station:
- the acoustic vibrations given out by the ring are detected,
- (so that it is not necessary to modify the electronic circuits of the standard mobile telephone).
14. A device according to any one of claims 7 or 8; the mobile telephone comprising a ring intended to signal calls to the user; said device being characterised in that the detection means for the mobile telephone to detect autonomously the call from the calling station comprise receivers, particularly microphones, sensitive to the acoustic vibrations given out by the ring,
- (so that it is not necessary to modify the electronic circuits of the standard mobile telephone).

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CLAIMS

1. A process for producing, when a standard portable mobile telephone is called by a calling station, an acoustic signal of power comparable to that of the ring of a domestic telephone instrument: said
5 process including the stages:

- of autonomous detection (1) by the mobile telephone, directly or indirectly, of the call from the calling station and of generation of a detection signal,

10 - of triggering, by means of said detection signal, the emission of an acoustic signal (4) of power comparable to that of the ring of a domestic telephone instrument,

15 so that the user of the standard mobile telephone is alerted to the incoming call even if he/she happens to be some distance away from the standard mobile telephone.

2. A process according to claim 1 characterised in that it includes additionally the stage

20 of emitting the acoustic signal by means of an emitter supplied (5), directly or indirectly, with power by a domestic source, particularly by a charger connected to the household electricity and/or a rechargeable battery by a charger connected to the
25 household electricity,

so that the number of incoming calls giving rise to the production of a high power acoustic signal is not limited by the capacity of the power source.

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3. A process according to any one of claims 1 or 2 characterised in that for the mobile telephone to detect autonomously the call from the calling station:

- a disturbance of the electromagnetic environment
of the mobile telephone is detected,
so that it is not necessary to modify the electronic
circuits of the standard mobile telephone.

4. A process according to any one of claims 1 or 2 such that in sleep mode the mobile telephone is combined with a charger, said process being characterised in that for the mobile telephone to detect autonomously the call from the calling station:

- the variations in charging current of said charger are detected,
15 so that it is not necessary to modify the electronic circuits of the standard mobile telephone.

5. A process according to any one of claims 1 or 2 such that the mobile telephone comprises a vibrator intended to signal calls to the user, said process being characterised in that for the mobile telephone to detect autonomously the call from the calling station:

- vibrations given out by said vibrator are detected (1), so that it is not necessary to modify the electronic circuits of the standard mobile telephone.

6. A process according to any one of claims 1 or 2 characterised in that for the mobile telephone to detect autonomously the call from the calling station;

- the call emitted by the calling station is detected by means of an independent electronic circuit.

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so that it is not necessary to modify the electronic circuits of the standard mobile telephone.

7. A device for producing, when a standard portable mobile telephone is called by a calling 5 station, an acoustic signal of power comparable to that of the ring of a domestic telephone instrument; said device including:

- detection means (1) for the mobile telephone to detect autonomously, directly or indirectly, the call 10 from the calling station and detection signal production means,

- means for triggering (2, 3), by means of said detection signal, the emission by an acoustic emitter of an acoustic signal of power (4) comparable to that 15 of the ring of a domestic telephone instrument, so that the user of the standard mobile telephone is alerted to the incoming call even if he/she happens to be some distance away from the standard mobile telephone.

20 8. A device according to claim 7 characterised in that said acoustic emitter is supplied, directly or indirectly, with power by a domestic source (5), particularly by a charger connected to the household electricity and/or a rechargeable battery by a charger 25 connected to the household electricity, so that the number of incoming calls giving rise to the production of a high power acoustic signal is not limited by the capacity of the power source.

9. A device according to any one of claims 7 or 8 30 characterised in that the detection means for the mobile telephone to detect autonomously the call from

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the calling station comprise disturbance analysis means of the electromagnetic fields surrounding the mobile telephone,

so that it is not necessary to modify the electronic
5 circuits of the standard mobile telephone.

10. A device according to any one of claims 7 or 8; the mobile telephone being combined in sleep mode with a charger, said device being characterised in that the detection means for the mobile telephone to detect autonomously the call from the calling station comprise analysis means of the charging current of said charger, so that it is not necessary to modify the electronic circuits of the standard mobile telephone.

15. A device according to any one of the claims 7 or 8; the mobile telephone comprising a vibrator intended to signal calls to the user; said device being characterised in that the detection means (1) for the mobile telephone to detect autonomously the call from the calling station comprise receivers sensitive to the vibrations given out by said vibrator,
20 so that it is not necessary to modify the electronic circuits of the standard mobile telephone.

25. A device according to any one of claims 7 or 8 characterised in that the detection means for the mobile telephone to detect autonomously the call from the calling station comprise an independent electronic circuit picking up the call signals emitted by the calling station,
so that it is not necessary to modify the electronic
30 circuits of the standard mobile telephone.

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13. A process according to any one of claims 1 or
2 such that the mobile telephone comprises a ring
intended to signal calls to the user, said process
being characterised in that for the mobile telephone to
5 detect autonomously the call from the calling station:

- the acoustic vibrations given out by the ring
are detected,
so that it is not necessary to modify the electronic
circuits of the standard mobile telephone.

10 14. A device according to any one of claims 7 or
8; the mobile telephone comprising a ring intended to
signal calls to the user; said device being
characterised in that the detection means for the
mobile telephone to detect autonomously the call from
15 the calling station comprise receivers, particularly
microphones, sensitive to the acoustic vibrations given
out by the ring,
so that it is not necessary to modify the electronic
circuits of the standard mobile telephone.

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